# Unicom Tic management system

This is a desktop – based management system built using C#. The system handles different user roles like **Admin, Student, Staff, and Lecturer** and allow them to perform their respective tasks after login.

Features like:

* User login based on role (The login system uses the email address as the username )
* Add, Update, Delete for Students, Lecturer, and Staff.
* Manage subjects and courses.
* Timetable creation with conflict checking .
* Exam and mark entry.
* Link students and lectures to subjects.
* Admin can manage Students, Lecturer, Staff, Courses, Subjects, Timetable and Marks
* Lecturer can view personal details, students marks and view their timetable
* Students can view their details, view mark and timetable
* Staff can help manage basic records

## Technologies’ used

* C#(.NET) and WinForms – for frontend and logic
* SQLite – backend database
* OOP Concepts – inheritance, encapsulation
* MVC Structure
* Error Handing
* Async methods – to avoid ui freezing

OOP Usage:

A base class person is used for common fields like User ID, Name ext.….. Classes like student, Lecturer, Staff inherit from person. This reduces code duplication and making the system easier to maintain.

### Why email is used for Login system:

Emails are **unique**, avoiding confusion with duplicate names.

Ensures better **security** and user identifications. Its follows modern application standards.